

REMARKS

Applicant respectfully requests reconsideration of the above referenced application in light of the Amendments submitted herewith and the Remarks that follow. Claims 1-11 and 14 are pending in this application.

In the Office Action dated June 26, 2008 (the "Office Action"), claims 1-11 were rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent Publication No. 2002/0116453 to Todorov et al. (hereinafter referred to as "Todorov") in view of U.S. Patent No. 6,964,053 to Ho et. al. (hereinafter referred to as "Ho").

Applicant respectfully traverses the claim rejections.

The Applicant's Remarks, set forth below, are preceded by related comments in the Office Action set forth in small indented bold-faced type.

Claim Rejections - 35 USC § 103(a)

Claims 1-11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Todorov et al (PgPub No. 2002/0116453 A1) in view of Ho et al (US Patent 6,964,053 B2).

As per claim 1, Todorov discloses [a] computer system for allowing at least two client processes (para. 0049, last 5 lines and elsewhere recites "a client protocol interface to provide data to multiple distinct clients practicing in variety of different data exchange protocols") to access data through a server process (Fig. 2, element #50 Data Access Server ("DAS")), said server process comprising an application (Fig. 3, element #90 DAS Engine) managing said data (Fig. 3, element 96, device protocol) and an engine (Fig. 3, elements # 80 and 82).

wherein the engine is adapted to receive requests (para. 0049, OPC client request) in a first language from one of client processes and issuing responses in the first language to said one of client processes (para. 0034, a client data exchange component (Fig. 3 # 80) is responsible for client application requests (any request coming is considered as "request in a first language") and presenting responsive data to client application according to a particular supported data exchange component 80), and

the engine is adapted to communicate with the application in a second language distinct from the first language, with objects having properties and associated with events (Fig. 5, Para. 0049-0054, para 0036 that set of stages that the data exchange component 80 and Standard Interface 82 is a superset of all interface operations potentially needed by any one of the data exchange component 80 to communicate with DAS 90);

the application is adapted to instantiate objects, to evaluate properties of instantiated objects based on data and to react to events, in response to said engine communicating with said application (Figs. 7-9, para. 0063-0111 describing how set of interfaces from the data exchange component 80 and Standard Interface 82 are executed by DAS engine 90 in response to calls by data exchange protocol of the OPC client request);

wherein the engine is adapted to issue responses in the first language to said one of client processes according to the objects instantiated by the application and to their properties (Fig. 7, para. 0034, DAS engine 90 obtains data received from data sources and passes the received data to a particular data exchange protocol 80 and the data exchange protocol delivers the received data to OPC client application request); and

the engine is adapted to provide updated properties and events to the application in the second language according to requests received in the first language from said one of client processes (Figs. 6-7, added, removed objects from client application request OPC).

Todorov does not explicitly teaches, but Ho further teaches the second language being an object-oriented language (col. 4, lines 15-35). Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to combine the teachings of the cited references to allow the second language being an object-oriented language as disclosed by Ho because it would enable multiple applications, developed by multiple development teams running on different platforms, with different data types, data structures, commands, and command syntax, but they would be able to interconnectivity independently of any tool or middleware, language, etc., so that an end user experiences looks, feel and response of a single seamless application at the terminal, as suggested by Ho (col. 2, line 48-60).

Office Action, pg. 2-4.

Applicant respectfully traverses these rejections. Applicant respectfully submits that the Examiner has not established a *prima facie* case of obviousness because there is no motivation to modify or combine the references' teachings and even if the references were combined, none of the prior art references, alone or in combination, describe or suggest all of the claimed limitations of at least the independent claim of the present invention: claim 1.

(a) Even if the references were combined, none of the prior art references, alone or in combination, describe or suggest all of the claimed limitations of the present invention:

Even if Todorov and Ho were combined, neither of the two references, alone, or in combination, describe or suggest all of the claimed limitations of at least claim 1.

a.1. Todorov

a.1.1. Presentation of Todorov

Todorov deals with data access servers (DAS) that facilitate monitoring/control client applications accessing process control data. A DA server obtains process control data from field devices, and data can be stored into a database or immediately transmitted to monitoring/control client applications that request data (§0034). DA servers are solely used to retrieve information, as reminded several times in Todorov's description (see for instance §0033, §0034, figure 7). Incidentally, DA servers are at most capable of not forwarding data which have not been updated since the last data request.

Todorov aims at providing extensible DA servers, that is, servers able to forward data to monitoring/control client application having new or unsupported data access protocols.

In order to achieve that goal, Todorov discloses a DA server (see figure 3) including a DAS engine (figure 3, 90) which implements core functions of the DAS, a standardized set of interfaces (figure 3, 82) which communicate with client data exchange protocol component (figure 3, 80).

The client data exchange protocol component 80 converts client requests into calls to one or more of the operation associated with standardized interface 82. Then, calls are handled by the DAS engine (§0043).

In addition, client data exchange protocol component 80 incorporates program modules, also called plugins (84 – 88). Once they are installed, modules provide *a protocol-specific interface to client applications and communicate with the data access server engine via standardized universal set of interfaces* (§0010, emphasis added).

Thus, the architecture disclosed by Todorov relies on the introduction of a new adaptive layer which is formed by the standardized set of interfaces and the client data exchange protocol component. These new layers provide a certain interoperability between the monitoring/control client applications and the DAS inasmuch as they allow *providing data to multiple distinct clients practicing a variety of different data exchange protocols* (§0049, emphasis added) well known in the field of DA servers, such as dynamic data exchange (DDE), SuiteLink, and OPC (OLE for Process Control).

a.1.2. Differences between the present invention and Todorov

There are significant differences between the present invention and Todorov, some of which will be discussed herein.

The first difference, which is acknowledged by the Examiner, is that Todorov does not disclose that the second language is an object-oriented language (page 4, third paragraph of the last Office communication).

The second difference, raised by the Applicant, is that Todorov does not disclose that the application is adapted to instantiate objects [...], *in response to said engine communicating with said application* (claim 1, emphasis added).

Indeed, as acknowledged by the Examiner (page 3, last paragraph of the Office Action, emphasis added), Todorov describes *how set of interfaces from the data exchange component 80 and Standard Interface 82 are executed by DAS engine in response to calls* of the client.

More precisely, in response to client's requests, the operations called by the DAS engine 90 and carried out by the various installed plugins enable the DAS engine 90 to communicate process data to client applications via the plugins (§0063, emphasis added).

Thus, in response to client application requests, the DAS engine is able to make calls on interfaces disclosed by Todorov in Figures 8 and 9, that is, the DAS engine requires the execution *a set of operations* (§0065) (methods/functions) published by objects via their interfaces; operations (methods/functions) being carried out by plugins.

However, the call of an operation (method/function) via the interface of an object is different than instantiating objects. Indeed, the call of the method/function of an object consists on requiring the execution of the method/function provided by the object which is already instantiated (see for example [http://en.wikipedia.org/wiki/Object_\(computer_science\)](http://en.wikipedia.org/wiki/Object_(computer_science))).

Consequently, the call of an operation (method/function) is a subsequent step of the step of instantiating the object.

Therefore, Todorov discloses that the application is able to make call of operations performed by plugins, but does not disclose that *the application is adapted to instantiate objects* [...], *in response to said engine communicating with said application* (amended claim 1).

The third difference, pointed out by the Applicant, is that Todorov does not disclose that *the engine is adapted to provide updated properties of said objects* [...] *to the application* (amended claim 1, emphasis added).

Indeed, the present invention discloses that updated properties provided by the engine to the application are updated properties of objects in the second language which is an object-oriented language.

Incidentally, this is clearly exemplified page 9 li. 28 - page 10 li. 14, in relation with the figure 6: in reaction to user input, user's web browser (which uses HTML language) sends a message to the process server. The abstraction layer, which is comprised in the engine, passes to the application updated objects properties or event, or request for updated properties, and communication between the abstraction layer of the engine and the application does not include html element. Indeed, and as claimed, the second language, which is an oriented-object language, is used between the engine and the application.

On the contrary, and as acknowledged by the Examiner, the second language disclosed by Todorov is not an object-oriented language. Therefore, Todorov cannot disclose that the engine provides updated properties of said objects to the application, in the sense of the present application.

The fourth difference, raised by the Applicant, is that Todorov does not clearly and unambiguously disclose that *the engine is adapted to provide updated properties of said objects and events to the application in the second language according to requests received in the first language from said one of client processes* (amended claim 1).

Indeed, as already mentioned in the former letter, this feature must not be read incompletely and independently but on the contrary together with other claimed features as a whole (see MPEP § 2141.02 (I)).

In fact, the present invention allows data to be shared by various client processes. In addition, the present invention allows the user to access (e.g. edit) and update (e.g. modify) shared data as a continuous process. This is explicitly disclosed in the specification of the present application that stored data can be modified upon user request (page 11, li. 9 -10).

On the contrary, Todorov discloses that, once the client's request is received by the DAS engine, the latter obtains the requested data, and then forwards it to the client. However, Todorov does not disclose that the client can modify data on DAS engine side.

In fact, such a possibility is out of the scope of Todorov. Indeed, it is well known by the skilled person that DA servers, and generally speaking DA architectures, are solely intended to obtain and to forward process control information (see for instance §0029).

Therefore, Todorov does not disclose that *the engine is adapted to provide updated properties of said objects and events to the application in the second language according to requests received in the first*

language from said one of client processes (as interpreted together with remaining features of amended claim 1).

a.2. Ho

a.2.1. Differences with Ho

With regards to Ho, Applicant sustains the arguments presented about Ho in previous Remarks submitted to the Office for the present application. Applicant reminds that at least the following differences had been identified.

First, Ho is silent about instantiation at the level of the server application.

Second, Ho does not disclose an engine adapted to *provide updated properties of said objects and events to the application in the second language according to requests received in the first language from said one of client processes* (as interpreted together with remaining features of claim 1).

For at least the foregoing reasons, Applicant respectfully submits that neither Todorov nor Ho, alone or in combination describe or suggest all of the claimed limitations of the present invention.

b) There is no motivation to modify or combine the reference teachings:

Even if Todorov and Ho included a description of each of the claimed limitations of at least independent claim 1, as stated in the Office Action, which they do not, Applicant respectfully submits that there is no motivation for one of ordinary skill in the art to modify Todorov in view of Ho.

There are three possible sources for a motivation to modify a reference: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the arts. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998). None of these three possible sources have been demonstrated in the Office Action.

Applicant respectfully submits that it would not have been obvious to modify Todorov in view of Ho, as both documents do not belong to the same technical field. Todorov is related to the specific domain of DA servers providing access to supervisory level client applications (§0002), while Ho relates to another specific domain which is integrating dissimilar applications, one executing within one platform and another

executing in another platform (col. 2, li. 62 - 64). In other words, Ho focuses on the integration of dissimilar and disparate applications (col. 3, li. 39 - 40), while Todorov aims at providing access at DA servers from similar variety of client applications (supervisory level client application) providing high-level control and monitoring and mainly differing in their data sharing protocols.

Therefore, one of skill in the art would not be prompted to combine documents that belong to such different domains, the sole common point being that Todorov and Ho belong to the field of computer science.

Furthermore, even if the skilled person tried to combine the teachings Todorov and Ho, (s)he would not be able to obtain the present invention. Indeed, as seen in points a.1 and a.2, neither Todorov nor Ho disclose that *the application is adapted to instantiate objects [...], in response to said engine communicating with said application* (claim 1, emphasis added). Therefore, since this feature is not disclosed, one of skill in the art could not be lead to the present invention.

In addition, neither Todorov nor Ho disclose that *the engine is adapted to provide updated properties of said objects and events to the application in the second language according to requests received in the first language from said one of client processes* (as interpreted together with remaining features of amended claim 1), that is, they do not disclose that two or more client processes can access and update data.

As a result, even if one of skill in the art were to combine the teachings of Todorov and Ho, (s)he would not be lead to the present invention, that is, the access and the possibility to update stored data.

Be it for this other reason, the combination of Todorov and Ho cannot lead to the present invention.

Incidentally, Todorov and Ho, even if they taught all the limitations of the claimed invention, which they do not, are not compatible because their combination would change their principle of operation.

For at least the foregoing reasons, Applicant respectfully submits that the invention of claim 1 cannot be obtained by the combination of Todorov and Ho.

Claims 2-11 depend directly or indirectly from independent claim 1, and define further features and structure of the system of the invention. Accordingly, these claims are patentable for at least the same reasons noted above with respect to claim 1 as well as for the additional features recited therein. Accordingly, notice to the effect that dependent claims 2-11 are in condition for immediate allowance is respectfully requested.

New Claim addition

Applicant respectfully requests that new claim 14 be entered. No new matter has been submitted.

Additional claim Amendments

Applicant respectfully submits that claim 1 has been amended for the sole purposes of clarity. No new matter has been submitted.

CONCLUSION

Claim 1 has been amended. Claim 14 has been added. Claims 1-11 and 14 are now pending and believed to be in condition for allowance. Applicant has made a diligent effort to place this application in better condition for immediate allowance and notice to this effect is earnestly solicited. The Examiner is respectfully requested to reconsider the application at an early date with a view towards issuing a favorable action thereon. If upon the review of the application, the Examiner is unable to issue an immediate notice of allowance, he is respectfully requested to telephone the undersigned attorney at (212) 895-1376 with a view towards resolving the outstanding issues.

The Commissioner is authorized to charge and fees required in connection with this submission to Deposit Account No. 50-0521.

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Respectfully submitted,

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